

C & R Battery Company

Chesterfield County, Virginia
Superfund Program Site Fact Sheet

Type of Facility: Battery Reclamation

Contaminants: Lead

Funding: Enforcement Financed

Site Description and History

The C & R Battery Company facility, a four-acre site in Chesterfield County, Virginia, was in operation from the early 1970s to 1985. The process at the site involved breaking open old automotive batteries and removing the lead for resale.

Contaminated areas at the site included the battery breaking area, an acid storage containment area, and a material stockpiling area for storing reclaimed and scrap lead. Soil over the entire site was lead-contaminated. Soil samples had a pH range of 3.5 to 12.3. However, groundwater at the site was determined to show no effects of contamination. This site consisted of one Removal Action (RA) and one Operable Unit (OU-1). In 1986, the Environmental Protection Agency (EPA) conducted the RA at the site. The RA included addition of lime to soils and pools of acid to neutralize acidity; installation of surface water drainage controls and grading of the site; and construction of a fence around the most contaminated areas to limit site access. The site was placed on the National Priorities List (NPL) on July 1, 1987.

The Remedial Investigation/Feasibility Study (RI/Fs) for OU-1 started in March of 1990, when a Record of Decision (ROD) was signed. ROD required excavation of approximately 36,800 cubic yards of lead-contaminated soils for stabilization, solidification, and disposal of the treated material in an off-site solid waste landfill. The Remedial Design (RD) started in the fall of 1990 and was completed in March 1992. A Unilateral Administrative Order was issued to 17 Potentially Responsible Parties (PRPs) in March 1992. A meeting took place on April 15, 1992, between EPA and the PRPs' representatives to discuss their concerns. In April 1992, one party, the C & P Telephone Company of Virginia, Incorporated, agreed to comply with all of the terms and conditions of the order.

Threats and Contaminants

Before the RA, there were several contaminant pathways. Air monitoring, at several workstations during battery-breaking operations, indicated lead contamination levels well

above the federal standards. Lead contamination in on site soil was found throughout the site to a depth of six feet. Groundwater below the site had not been affected, but surface water was contaminated with heavy metals and acids. Health risks existed from possible ingestion or direct contact with contaminated soil and surface water, or inhalation of the air during facility operations. Before 1986, during routine health screenings, some company employees were found to have elevated levels of lead in their blood. There was also an ecological threat to the James River and its tidal wetlands and concerns for the people who frequent the river. The river has shown no sign of contamination from the site.



Photo by Dave Gillispie

Current Site Status

The RA started in April 28, 1993, and was completed on September 28, 1993. Approximately 49,000 tons of soil was stabilized and disposed off site. The site has been backfilled with clean soil and revegetated with grass. Geraghty and Miller submit quarterly monitoring reports on the site to ensure that the remedy is complete. Samples were taken from the area where above ground oil tanks had been removed on the Capital Oil Company portion of the site. Resulting sample analyses confirmed no lead contamination exists in the area. However, the EPA recommended that the Commonwealth LUST (Leaking Underground Storage Tank) Program scrutinize the high levels of hydrocarbons identified in the soil. It appears the site is remediated and stabilized. To ensure future protection of health and the environment in the area, periodic groundwater sampling continues due to high manganese levels detected in wells at the site over an extended period of time.

Verizon, a responsible party at the site, submitted a study to EPA that examines the groundwater manganese levels. At issue is whether groundwater monitoring should be continued at this site. The need for deed restrictions may also be removed through an Explanation of Significant Differences document. EPA is anticipating delisting this site from the NPL in the near future.

Site inspections are conducted periodically to ensure the site is stabilized. The second Five Year Review site inspection was conducted November 2002.

Community Relations and Concerns

The Proposed Plan public meeting was held in February 1990. There was a moderate turnout with no opposition to the plan. On May 5, 1992, and December 21, 1992, local officials attended briefings to discuss the status of the RD and RA. On January 19, 1993,

a public meeting was held at Bellwood Elementary School to update citizens on remedial activities. Representatives of Chesterfield County requested to be updated regularly on site issues. When the RA ended, a press release was sent to the local media and a fact sheet was mailed to citizens and legislators.

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